

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

# **PERFORMANCE WORK STATEMENT**

## **ENGINEERING AND TECHNICAL SUPPORT SERVICES**

February 14, 2007

NATIONAL AIRWAY SYSTEMS  
ENGINEERING  
AJW-14

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## SECTION 1 - GENERAL

### 1.1 GENERAL INFORMATION:

The National Airway Systems Engineering Division, AJW-14, located at Mike Monroney Aeronautical Center, provides engineering support to the Federal Aviation Administration (FAA) National Airspace System (NAS). AJW-14 supports a broad range of systems, consisting of thousands of individual pieces of equipment in the Facilities, Surveillance, Navigational Aids, and Weather Systems. In support of NAS systems and equipment, AJW-14 also provides configuration management, hardware and software documentation, modifications, direct field support, systems support, and acquisition support.

AJW-151, NAS Defense Program, AJW-173, OK Communications Engineering Team and AJW-223, Power Services Group/Operations Engineering Team are also located at MMAC in Oklahoma City, OK. These Teams provide similar support services to the FAA National Airspace Systems as those provided by AJW-14.

This Performance Work Statement outlines the requirements and conditions of contract support to be provided to AJW-14, AJW-151, AJW-173, and AJW-223 offices located at MMAC. Typically the text of this document will note that contract support effort will be provided to AJW-14. It is the intent that similar support efforts will be provided to AJW-151, AJW-173 and AJW-223 in their respective contract work assignments.

### 1.2 SCOPE OF WORK:

1.2.1 This statement of requirements and conditions sets forth the requirements for Engineering Services and Technical Support. The work to be performed is in support of civilian and military aircraft guidance and surveillance equipment and systems.

1.2.2 To accomplish the work effort specified in this Performance Work Statement (PWS) the contractor shall provide a wide variety of engineering, technical and administrative support personnel. The contractor shall perform the services identified in this PWS in support of the NAS with minimal assistance from FAA personnel.

### 1.3 APPLICABLE DOCUMENTS:

The listed documents are examples of reference documents to be used as required when performing services under this Performance Work Statement (PWS). This is not a complete list. Additional documents, including but not limited to FAA Orders, Standards, Branch Operating Procedures, may be identified in the individual project assignments and elsewhere. Latest revision of documents will be used.

- a. Users Guide - Maintenance Technical Documentation System, for National Airspace System (NAS) Facilities and Equipment.
- b. Order 1320.1D - FAA Directives System.
- c. FAA - iCMM - Integrated Capability Model for the Acquisition of Software Intensive Systems.
- d. Specification FAA-G-2100 - Electronic Equipment, General Requirements.
- e. FAA-STD-010C - Graphic Symbols for Digital Logic Diagrams.
- f. FAA-STD-013D - Quality Control Program Requirements.
- g. FAA-STD-018a - Computer Software Quality Program Requirements.

- h. FAA-D-2494b - Technical Instruction Book Manuscript: Electronic, Electrical, and Mechanical Equipment Requirements for Preparation of Manuscript and Production of Books.
- i. FAA Order 3900.49 - Control of Hazardous Energy During Maintenance, Servicing and Repair.
- j. Order 1100.157 - National Engineering Field Support Division Maintenance Program Procedures.
- k. FAA Order 1320.58A - Instructions For Writing Notices, Maintenance Technical Handbooks, And System Support Directives.
- l. Applicable manufacturer's instruction material.
- m. AJW-14 (AOS-200) Division Operating Procedures.

#### 1.4 PERFORMANCE WORK STATEMENT (PWS) REQUIREMENTS:

##### 1.4.1 General Requirements:

1.4.1.1 The Contractor shall provide the necessary resources, personnel, facilities, material, equipment, and services to meet the requirements of this PWS. Each project assignment will define the scope, level of support, and deliverables required.

1.4.1.2 The various task projects shall include but not be limited to the following:

- a. Perform engineering studies related to modification, design, monitoring, remote control, interfacing, and other requirements on National Airspace System (NAS) equipment. Deliverables may include an engineering report and cost estimate package for design, procurement, installation, testing, and evaluation of prototype systems.
- b. Provide the technical expertise, materials, fabrication effort, and equipment to design, install, test, and evaluate prototype modifications of NAS equipment.
- c. Provide hardware and software documentation, drawings, specifications, and cost estimates to implement proposed changes to NAS equipment on a national level.
- d. Working from comments and material provided, develop changes to equipment instruction books and system maintenance handbooks. Camera-ready page masters of revised books are required as an end product.
- e. Provide technical support and management of the AJW-14 Program Support Facilities (PSF), System Support Facility (SSF), Radar Support Facility (RSF), Enroute Support Facility (ESF), Navigation Engineering Test Structure (NETS), VOR-700, and other test bed facilities located at MMAC as required.
- f. Provide for the management, operation, and support of the AJW-14 Local Area Network (LAN), computer workstations, and peripheral computer equipment. NOTE: At this time LAN operations are not assigned to organizations supported under this contract. This and subsequent references to LAN support are included for informational purposes only at this time and are reflective of historical workload. If it should become an assignment during the course of this contract, it will be ordered and funded either under one of the then existing orders or by separate order.

g. Provide for management and operation of the AJW-14 technical data library and software library including software configuration control and records.

h. Provide for management and control of the AJW-14 Test Equipment Laboratory.

i. Provide support for technical drafting and illustrating, editing, word processing, property management, telecommunications, data base management, fiscal, training, safety, environmental, HR programs, and other administrative support.

j. Provide first level engineering support to field organizations through telephone assistance or onsite assistance.

k. Provide for engineering, equipment installation, and other maintenance related support for Headquarters National Airway System (HQNAS) programs and projects requiring AJW-14 support.

l. Provide technical and administrative support for new systems acquisitions by writing Test Plans, operation and maintenance procedures, and participating in systems level integration, validation, certification of equipment and other acquisition support as required.

m. Provide support for Safety Management System (SMS) activities.

n. Provide support for the Information Security System (ISS) function, which may include, but is not limited to, oversight, remediation, and system configuration and authorization package (SCAP).

1.4.1.3 Work efforts shall involve an extensive interchange of information and ideas between the Contractor and the FAA. After project assignment, the Contractor assumes all responsibility for supervision and accomplishment of the contractor assigned projects.

1.4.1.4 The Contractor shall maintain individual project files consisting of background information, design notes, and other material for assigned projects. Project numbers shall be assigned by the FAA.

1.4.1.5 All case files, program files, drawings, software, programs, diskettes, design data, artwork, etc., developed by the Contractor under this PWS, become the property of the Government. These items shall be delivered with the final product.

#### 1.4.2 Documentation Requirement:

All documents submitted to the FAA, related to project accomplishment, must be developed on electronic media. It shall be compatible with the requisite version Microsoft Word, Excel, Auto Cad, or other software as required by AJW-14. If requested, the submittal shall be delivered to the FAA on electronic media or hard copy or both. This requirement may include management reports, progress reports, ad-hoc reports, technical drawings, vouchers and other accounting documents as determined by AJW-14.

#### 1.4.3 Government Access to Contractor Facility:

For contract monitoring, Government personnel shall be allowed unannounced access to the Contractor's facilities during normal working hours.

#### 1.4.4 Contractor Access to Government Agencies:

When working on AJW-14 assigned projects, contract personnel shall obtain permission from AJW-14 before visiting other Government agencies or facilities.

#### 1.4.5 Contractor Access and Operation of FAA Facility Equipment:

AJW-14 shall coordinate Contractor access to FAA facilities. Designated FAA site personnel have the authority to grant access, and operate the site equipment. The Contractor proposed test requirements shall be provided at the time the request for test is made. Use of FAA equipment may be outside normal duty hours.

#### 1.4.6 Work Scheduling, travel, and overtime:

1.4.6.1 Contract personnel may be required to work outside the normal day shift (8:00 AM to 4:30 PM). When overtime work is required, it must be approved in advance by the requiring organization. Flexible work schedules comparable to government schedules may be used when approved by the requiring organization. Extensive contract employee travel may be required. Actual cost lodging must be approved in advance by the requiring organization.

1.4.6.2 When government employees are granted administrative leave as a result of inclement weather, potentially hazardous conditions, explosions, presidential leave and other special circumstances, non-essential contractor employees shall be excused the same time. This excused leave time shall be considered as a direct cost to the contract.

#### 1.4.7 Tasks, Subtasks, and Projects:

1.4.7.1 A "Task" description will be general in description and broad in scope. A separate contract delivery order will be initiated for each task effort. A typical task description will cover the support for one or more NAS systems. Within the task description, a subtask(s) may be initiated for each major system support effort. As an example, A task will be written for Surveillance Support. Subtasks to support this task may include Enroute Radar Support, Terminal Radar Support, Beacon Radar Support, etc. As a minimum the Task Description will include: Background, Scope, Deliverables, and Milestones. Each Task Description will be signed by the Team Manager and Contract Technical Officer TO/COTR before submission to the CO.

1.4.7.2 Some Task efforts may be very extensive and require the work be broken into Subtasks. Typically the Subtask format will include: Background, Scope, Milestones, Deliverables, GFP/GFE, Special Terms and Conditions, Quality Control / Quality Assurance, Inspection and Acceptance, and Technical Documents. Each Subtask will be signed by the Team Manager and TO/COTR before submission to the CO.

1.4.7.3 All requests to establish new projects with the contractor shall be submitted by or through the AJW-14 Team Manager to the COTR by email or memo. The COTR will ensure the work is within the scope of this PWS, and forward the approved work request to the contract management. The contract management will assign projects to their employees and notify the requiring office to which employee the work is assigned. All deliverables completed by the contract employees will be submitted to their contract management for review and acceptance. The contract management will forward approved deliverables to the requiring organization.

1.4.7.4 Each project or project phase shall be planned for completion by the Contractor under the following procedures:

- a. The Contractor shall advise when he is ready to start projects or project phases.
- b. An orientation meeting will be scheduled as required.
- c. The Contractor shall be provided the project background information.
- d. Technical documentation (instruction books, handbooks, etc.) will be identified, and provided for access in the AJW-14 technical library if available.
- e. The Contractor shall be advised of required scheduling, reporting, and deliverables.

#### 1.4.8 Subcontracting:

The Contractor shall not enter into subcontract agreements without approval of the Contracting Officer. All subcontracts shall include the identity of the subcontractor, the extent of the work, the reason for subcontracting, and the extent of competition in selection of the subcontractor.

#### 1.4.9 Voucher Requirements:

1.4.9.1 The Contractor shall certify that all direct charges are required in support of the contract. A copy of the receipt for all purchases shall be attached in support of voucher verification. The FAA subtask or project assignment number shall be recorded on the receipts attached to the vouchers. Vouchers may be submitted as frequently as bi-weekly.

1.4.9.2 The Government shall not be obligated to reimburse the Contractor for any cost incurred before the approval to begin work on a task, subtask or project was given by the requiring government organization (AJW-14).

#### 1.4.10. Training:

1.4.10.1 Section 3.3 (POSITION REQUIREMENTS AND QUALIFICATIONS), of this PWS specifies the level of education, training, and experience necessary to perform the work assigned to the contractor under this PWS. These requirements are established as guidelines to be used in the selection of employees. The contractor shall provide employees that meet these requirements at the time of employment.

1.4.10.2 Contract employees will be required to attend the requisite in service training necessary to deliver the services identified in SECTION 2 – AREAS OF EFFORT, of this PWS. Employees must become proficient on baseline and upgrades to NAS systems and equipment, support documentation, and work processes. Training will be required for non-technical as well as the technical support positions defined in this PWS.

1.4.10.3 All requests for contractor proficiency training will be in writing. Processing of requests for this training will be accomplished by following the AJW-14 (AOS-200) Administrative Operating Procedures pertaining to contractor training.

1.4.10.4 When approved by the FAA, contract employees may or shall (depending on the type of training) attend Agency and other sponsored training considered beneficial to the Agency. As examples, types of training may include, but are not limited to, administrative, technical and non-technical training, such as safety, security, appropriations law, environmental, etc.

1.4.10.5 Prior to attending any FAA Sponsored training all support contractors are required to submit the "Support Contractor Authorization-FAA Sponsored Training" form to the appropriate Contracting Officer. See AMS Procurement Form Templates.

#### 1.4.11. Personnel and Supervision:

The contractor shall designate sufficient supervisory personnel to meet task outcomes. Contract supervisors will provide day-to-day supervision of contract personnel including, but not limited to, work monitoring, payroll records, leave, etc. At no time will contractor personnel be supervised by FAA personnel. Government assistance will be available to provide technical and policy guidance through the assigned COTR process.

## SECTION 2 - AREAS OF EFFORT

### 2.1 MODIFICATION SUPPORT REQUIREMENTS:

#### 2.1.1 General Information:

AJW-14 is responsible for in-service improvements and modifications of assigned NAS systems. These responsibilities are accomplished by development and implementation of modifications and upgrades to assigned equipment and facilities. The Contractor will be assigned projects encompassing the full range of modification support. Typical projects range from a feasibility study of the proposed modification through prototype development, testing, and preparation of documentation. See paragraph 2.2.1, Documentation General Information, of this PWS for definition of types of Modification Documentation.

#### 2.1.2 Project Definition:

Modification projects typically involve:

- a. Engineering Study (ES), with Prototype Development and Testing.
- b. Production Package Development.

#### 2.1.3 Engineering Study Phase:

This phase requires a completed engineering study report with prototype development. Typical events involved in this phase are:

- a. Review and evaluate the technical material provided with the FAA assigned and approved engineering project.
- b. Review the reported problem or requirement with the appropriate FAA representative.
- c. Request for contact with the appropriate field installations to discuss or evaluate the reported problem or requirement.
- d. Visit facilities as approved by the FAA.
- e. Develop a solution to the problem.
- f. Conduct laboratory or simulated testing of a breadboard design that demonstrates the feasibility of the solution.
- g. Prepare an Engineering Study Report (ESR), which clearly defines the problem or requirement, the alternatives considered, and proposes a solution or course of action.
- h. Submit the Engineering Study Report for review. If rejected by the FAA, it is returned for additional study. If accepted by the FAA, guidance shall be provided for further contract action.
- i. Fabricate a complete modification kit, working from the FAA approved design.
- j. Arrange through an AJW-14 representative for the location(s) to make the prototype installation and test. This request should be made a minimum of 30 days in advance of the required testing.



k. Develop a draft of paragraphs 7, 9, 14 and 15 of the EEM/PEM (materials, special tools and test equipment, modification procedures and test after modification) per the latest version of FAA Order 1320.58.

l. Install and test the modification, submit a report on test results and findings, make design corrections if necessary.

m. Prepare general cost estimate for nationwide implementation.

n. Complete the draft modification in accordance with the latest Order of 1320.58. Include all the required paragraphs and draft instruction book changes to incorporate the modification.

o. The FAA will formally accept or reject the test report and the draft EEM, PEM, SSM, or SSD. If rejected, the additional work required shall be identified in general terms.

#### 2.1.4 Production Package Development Phase:

This phase of a project normally results in two documents. A Purchase Description for acquisition of materials, and the final EEM/PEM documentation. Both shall be submitted to AJW-14 by the Contractor.

a. The Purchase Description consists of drawings, specifications, and parts list. Final cost estimates shall be attached. The Purchase Description shall allow for competitive acquisition action. Specification FAA-G-2100 shall be used as a guide in specifying kit parts.

b. The EEM/PEM shall be delivered in camera-ready form and in accordance with the latest version of Order 1320.58. Modification projects involving instruction book changes require the format of the existing book to be maintained. The type and artwork of the changed pages must match that of the original pages or masters.

## 2.2 DOCUMENTATION SUPPORT REQUIREMENTS:

### 2.2.1 General Information:

2.2.1.1 AJW-14 has the responsibility for development and changes to documentation related to NAS equipment utilized by the FAA. This documentation is primarily maintenance oriented in the form of Maintenance Technical Handbooks (general equipment or system specifications) and Technical Instruction Books (equipment functional testing and troubleshooting). Responsibility for Commercial Off the Shelf (COTS) documentation is included.

2.2.1.2 The contractor shall develop and maintain technical documents as appropriate to support assigned work effort. The documentation is primarily maintenance oriented for both hardware and software maintenance. These documents shall meet AJW-14 requirements for format and content.

### 2.2.2 Project Definition:

2.2.2.1 Typically documentation projects will consist of one or more of the following:

- a. Development of System Test Plans.
- b. Development of Maintenance Technical Handbooks, revisions, and page changes.
- c. Development of Instruction Books, revisions, and page changes.
- d. Participate in development and review of hardware and software documentation.
- e. Prepare Site Program Bulletins (SPBs).

f. Provide other documentation support as required.

2.2.2.2 To accomplish the work, the Contractor shall undertake efforts typified by, but not limited to the following:

a. Submit documentation suitable for inclusion into existing FAA technical manuals, orders, and other applicable hardware and software documentation.

b. Prepare new maintenance documentation.

d. Conduct an analysis of and incorporate FAA review comments.

e. Provide management review and approval packages for technical documentation projects. These packages typically consist of a clearance record (FAA Form 1300-2) and copies; original copy of a transmittal document (Order Notice or Change); and camera-ready copy of Notice, New Orders, Revised Orders, instruction book page changes, or handbook page changes.

## 2.3 SOFTWARE AND HARDWARE ENGINEERING SUPPORT REQUIREMENTS:

### 2.3.1 General Information:

2.3.1.1 The FAA is actively involved in acquiring and fielding new facilities, systems, and equipment throughout the NAS. AJW-14 is called on to provide a wide range of technical and acquisition support for these major program efforts, to transition these systems and equipment from the research and development arena into the operational environment. Software and Hardware Engineering support is also needed to maintain existing facilities and equipment.

2.3.1.2 Software support requirements are primarily involved with embedded software on active NAS systems and equipment as well as AJW-14 test bed facilities and equipment. Engineering projects typically are software maintenance oriented and include software development and software changes. Software support is also required for development and maintenance of databases at the national and local level. The AJW-14 contract work force shall be required to support AJW-14 in the software and hardware engineering activities required to maintain the NAS facilities, and AJW-14 test bed facilities.

### 2.3.2 Project Definition:

2.3.2.1 The contractor shall provide the personnel required for software engineering and database management support. Typical duties are listed but not limited to the following:

a. Develop operators, programmers, operations and maintenance, software user's, and computer system diagnostic manuals where equivalent FAA or commercially developed documents are unavailable.

b. Operate and generate software programs for the various automated systems. Permanent or temporary additions, deletions, and changes to the equipment configuration will periodically occur. It shall be the responsibility of FAA designated personnel to re-certify the facility configuration when changes occur.

c. Maintain an inventory for software program masters, operational firmware, documentation, and developmental system software for assigned hardware and software. A listing of each program by version, revision level, and other information will be developed.

d. Research and design hardware and software systems or enhancements to existing systems or networks.

e. Provide support for hardware, firmware, and software acquisition, development, distribution, and installation.

f. Develop and execute detailed plans, schedules, and related activities to test, debug, and validate subroutine, module, and software system.

g. Provide engineering review of software and hardware design data, to ensure it meets the criteria established in the documents listed in SECTION 1.3, APPLICABLE DOCUMENTS, of this PWS.

h. Perform analysis, design, programming, and testing in support of proposed acquisitions of operational and support software. The integrity of the original design implementation, program function, and maintainability shall be protected.

i. For operational programs, develop and maintain technical documentation. This documentation shall describe software functions, maintenance requirements, and maintenance techniques.

j. Insure that hardware and software changes are performed in a thorough and complete manner to enhance future maintainability.

k. Insure that all system software and hardware continues to meet NAS facility operational and functional standards as modifications and retrofits are developed or installed.

l. Develop or review Contract Data Requirements Lists (CDRL) and other contractual documentation.

m. Participate in Preliminary Design Reviews (PDR), Critical Design Reviews (CDR), Physical Configuration Audits (PCA), and Functional Configuration Audits (FCA).

n. Provide for Quality Assurance support by performing activities defined by the AJW-14 (AOS-200) quality assurance policy and procedures.

o. Participate in meetings and conferences as required in the acquisition and life cycle process, and provide responses to action items as needed.

p. Develop database programs for purpose of tracking AJW-14 engineering, modifications, maintenance, time utilization, and budget activities.

q. Provide support responsibilities for AJW-14 in operation and management of local and national level databases.

r. Provide database training, data entry assistance, and reports when required.

s. Provide other software and hardware engineering support as defined by individual project efforts within the scope of this PWS.

## 2.4 SOFTWARE MAINTENANCE FACILITY (SMF) REQUIREMENTS:

### 2.4.1 General Information:

The SMF is a computer installation consisting of hardware, and software to satisfy software development, integration, test, and configuration management. For purposes of this PWS the SMF includes duties associated with the operation and maintenance of AJW-14 test bed facilities, Local Area Network (LAN), Automated Data Processing (ADP) and peripheral equipment.

#### 2.4.2 Project Definition:

Typical project efforts are listed but not limited to the following:

- a. Develop periodic maintenance schedules and take corrective maintenance actions for AJW-14 LAN, computer systems and peripherals, and test bed equipment. Minimal troubleshooting shall be performed by SMF support personnel. Major hardware maintenance will be performed through established FAA maintenance contracts. Minor repairs may be accomplished by SMF contract personnel.
- b. Become familiar with and be capable of operating test bed systems, LAN, ADP, and peripheral equipment for the purposes of maintenance actions, modifications installation, testing, and training.
- c. Provide limited level of troubleshooting and repair to maintain equipment in an operational mode on both hardware and software.
- d. Develop and provide equipment familiarization training as a result of hardware and software modifications and enhancements.
- e. Maintain an inventory for software program masters, operational firmware, documentation, and developmental system software for assigned hardware and software. A listing of each program by version, revision level, and other information will be developed.
- f. Provide for hardware and software enhancements and upgrades for the LAN, ADP, and testbed equipment.
- g. Prepare documentation in support of updates or changes to software and hardware.
- h. Perform system backups and data recovery.
- i. Provide systems security, and the development of procedures for use and maintenance of files and libraries for existing systems: Local Area Network (LAN), Tandem MPS, AT&T workstations, IBM PC's and compatibles, Harris and Sun workstations, peripherals of all of the above, and new systems coming into the inventory.
- j. Provide support for installation and relocation of automated equipment.

### 2.5 DIRECT FIELD SUPPORT REQUIREMENTS:

#### 2.5.1 General Information:

AJW-14 has the responsibility to provide technical consultation and assistance to the field technicians and engineers when required to restore out of service facilities back to operational status. Requests for on-site assistance can be required on a routine basis or on short notice (emergency) basis anytime within a 24-hour day.

#### 2.5.2 Skill Requisites:

Field support type of work requires an extraordinary high level of system and equipment experience and expertise. Request for assistance from the field occurs only after on-site technicians have not been able to restore a facility back to service. AJW-14 and the contractor must be in agreement on which contract employees are qualified to participate in field support duties.

### 2.5.3 Project Definition:

When contract employees are called upon for direct field support assistance, they shall follow the same procedures as government employees performing the same service. Maintenance support shall be provided through telephone assistance and on-site assistance when needed. Contract employees shall provide the required documentation for tracking requests for assistance, and entry of data into the AJW-14 database.

## 2.6 GENERAL SUPPORT REQUIREMENTS:

### 2.6.1 General information:

AJW-14 provides a highly skilled government and contract technical work force to meet the engineering, technical, and documentation services required to maintain and upgrade NAS facilities and equipment. Other support functions are required to support and complement the AJW-14 government and contract technical work force in meeting the requirements of their assigned duties. The contractor shall provide the personnel to perform the support requirements listed below.

### 2.6.2 Areas of Support:

2.6.2.1 Engineering Test Equipment Laboratory and EPROM Equipment. The Contractor shall manage, maintain and operate the AJW-14 Engineering Laboratory. The lab will be staffed during normal duty hours. Essentially the lab will be kept clean, tools and test equipment kept in readiness, inventories and calibration records kept up to date, and provide technical support as required. The Contractor shall provide support to maintain, operate and program the EPROM Programming equipment as required.

2.6.2.2 Technical Drafting/Illustrator. The Contractor shall be responsible for providing Technical Drafting/Illustration Support. Typically this will include: creating and updating fabrication drawings, figures, illustrations, and schematics by automated and manual methods; conversion of existing paper copy drawings into digitized drawings; develop and maintain proficiency on automated drafting systems and techniques.

2.6.2.3 Technical Documentation Center. The Contractor will operate and maintain the AJW-14 Technical Documentation Library. The library will be staffed during normal duty hours. The library will be kept clean and orderly, with documents properly shelved, filed, and kept current. All changes to documents will be posted in a timely manner. The technical librarian will be available to provide assistance as required.

2.6.2.4 Technical Editing/Technical Writing. The Contractor shall be responsible for providing Technical Editing, Technical Writing, Word Processing, and Scanning support. Documents typically include maintenance handbooks, technical instruction books, site bulletins, modification directives, and orders. Delivered products will be consistent in format, grammar, and style as required by FAA and AJW-14 documentation directives, national orders, and standards. Support will include all aspects of the documentation process from initial draft of documents through editing, and preparation and distribution of print packages.

2.6.2.5 Program/Administrative/Secretarial Support. The Contractor shall be responsible for providing administrative support as needed in various locations at the division and branch level. Position title(s) for these general support positions are found in Section 3 of this PWS. Position descriptions will be prepared for these positions. Personnel will perform the duties related to:

- a. Telephone communications, space management, and property inventory management.
- b. Ordering, tracking, receiving and shipping of supplies and equipment.
- c. Personnel, safety, environmental and training related activities.
- d. Acquisition and budget related activities.

- e. Database and records management to include data entry, updating, tracking, problem resolution, and preparation of reports.
- f. Quality Assurance and Configuration Management
- g. Secretarial support.
- h. Other administrative support as required.

## 2.7. INSTALLATION SUPPORT REQUIREMENTS:

### 2.7.1 General Information:

Historically AJW-14 and associated technical support contract personnel have had the responsibility for engineering development and delivery of in-service improvements, upgrades, and modifications of assigned NAS systems and equipment. Similar contractor support related activities are also provided for AJW-151, AJW-223 and AJW-173 offices located at the MMAC. The requirement for installation of equipment due to upgrades and modifications of NAS facilities has become part of the task effort assigned to the local AJW-XXX Offices and their support contractor.

### 2.7.2 Installation Task Development:

Typically the AJW-XXX Engineering Office is asked to provide support for Major System Upgrades, Modifications, and Service Life Extension Programs (SLEP) for NAS facilities. The support activities typically include engineering studies, new equipment identification, install and test equipment at key sites, baseline the installation for national implementation, install equipment at requisite sites, update site technical documentation.

### 2.7.3 Installation Task Requirements:

Specific requirements in support of this area of effort will be provided in the Sub-Task and Engineering Project documents. In general the contractor installation support requirements will include:

- a. Provide engineering and technical support for project development leading to the installation effort as defined in paragraph 2.7.2.
- b. Participate in equipment installation related meetings and development of installation schedules.
- c. Identify needed materials, equipment and supplies for site installations.
- d. Provide logistics support for procuring, receiving, shipping, storage, and site delivery of equipment and materials.
- e. Perform the installation of equipment at required sites.
- f. Perform or assist in performing operational checks of equipment after installation.
- g. Revise and update the site facility drawings as needed after completion of installation.
- h. Perform other related installation activities as defined in the subsequent engineering projects.

## 2.8 Continuity of Operations:

2.8.1 General Information:

All or a portion of the services performed under this contract may be designated as essential in the event of crisis or emergency. Should such an event occur, the Contracting Officer or designated representative may require the contractor to designate mission essential personnel, who will be required to perform essential services to ensure continuity of required operations.

2.8.2 Reserved.

### SECTION 3 - PERSONNEL REQUIREMENTS

#### 3.1 GENERAL REQUIREMENTS:

3.1.1 The Contractor shall be responsible for employing qualified personnel to perform the duties defined in this PWS. The Contractor must have the personnel, organization, and administrative control necessary to ensure that each project is completed satisfactorily. If questions arise that the Contractor is using other than qualified personnel, the Contractor shall provide proof that personnel do possess proper qualifications and experience.

3.1.2, After award of contract, the Contractor shall submit a resume for each person to be assigned to this contract. The requiring government organization will review resumes for purposes of determining that applicants meet the requisite qualifications of paragraph 3.3 POSITION REQUIREMENTS AND QUALIFICATIONS of the PWS. Exceptions for submission may be made in the case of incumbent employees for which a resume has been provided and on file with the requiring organization.

3.1.3. Exceptions or waiver to requisite journeyman level qualifications are covered under Section 3.3 of this PWS. AJW-14 shall review resumes and notify the Contractor of their determination of waiver based on the qualifications of the applicant.

3.1.4 The number and type of personnel positions may be amended due to normal employee attrition or a change in AJW-14 assigned workload. The Contractor shall submit resumes to the FAA for review of qualifications prior to filling vacant positions.

#### 3.2 CONTRACT MANAGER GENERAL REQUIREMENTS:

3.2.1 The Contractor shall designate a Contract Manager for the contract. The Manager shall be responsible for the management and coordination of the contract. The Contract Manager shall act as the central point of contact with the Government. The Manager shall have the authority to represent and commit the Contractor in dealing with the Government.

3.2.2 The Contract Manager shall be physically located at an established Oklahoma City contract facility or an on-site MMAC facility. The manager may work an alternate work schedule with approval from the FAA

3.2.3 Should the Contract Manager be temporarily absent, an individual shall be designated in writing to act as alternate. The CO and COTR shall be notified of the name of the individual to act as alternate.

#### 3.3 POSITION REQUIREMENTS AND QUALIFICATIONS:

Requisite qualifications for each contract position have been developed to reflect the level of education, training, and experience necessary to perform the projects assigned under this PWS. These requirements are established as guidelines to be used in the selection of employees.

##### 3.3.1 Contract/Technical Manager:

3.3.1.1 A Bachelor of Science degree in Electrical or Electronic Engineering is required. Degrees in other technical or science fields may be substituted depending on other qualifications and specialized experience.

3.3.1.2 At least ten years of experience in providing hardware and software support of electronic systems is required. This experience must include: direct responsibility for providing systems level requirements definition; product design, development and installation; development of and modifications to hardware and software documentation; quality assurance and quality control programs and procedures. Hardware and software experience on NAS related systems and equipment is highly desirable. Experience in management of engineering groups is desired for the technical manager, and the contract manager positions.



3.3.1.3 Knowledge of government procurement and contracting rules and regulations is required for the contract manager position, and desirable for the technical manager. Conceptual knowledge of the NAS systems and equipment is required for the technical manager, and is desirable for the contract manager position.

### 3.3.2 Software Engineer:

3.3.2.1 A Bachelor of Science degree in software engineering, electronics or electrical engineering is required. The degree must be from a school of engineering with at least one curriculum accredited by the Accreditation Board for Engineering and Technology (ABET) as a professional engineering curriculum. A degree in engineering technology or in an appropriate professional field such as physics, chemistry, architecture, computer science, mathematics, hydrology, or geology may be substituted in lieu of the engineering degree, depending on other qualifications, and length and type of specialized experience. Alternate degree guidelines: The work history must demonstrate application of professional engineering principles and practices wherein work was supervised by a professional engineer. It is preferable that the academic record reflect completion of 5 of the following 7 areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

3.3.2.2 At least six years experience in providing software engineering services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Experience in software development and modifications, circuit analysis, and technical writing skills are required. Requisite engineering experience on NAS systems and equipment is highly desirable.

3.3.2.3 Knowledge of professional engineering principles, practices and procedures is required. Specialized knowledge of NAS systems and equipment is required. Knowledge of computer hardware, systems software, and computer systems architecture and integration, are required. Highly developed software programming skills in NAS applications software such as 'C', UNIX, Assembly, ADA, and FORTRAN are required.

### 3.3.3 Electronic/Electrical Engineer.

3.3.3.1 A Bachelor of Science degree in electronics or electrical engineering is required. The degree must be from a school of engineering with at least one curriculum accredited by the Accreditation Board for Engineering and Technology (ABET) as a professional engineering curriculum. A degree in engineering technology or in an appropriate professional field such as physics, chemistry, architecture, computer science, mathematics, hydrology, or geology may be substituted in lieu of the engineering degree, depending on other qualifications, and length and type of specialized experience. Alternate degree guidelines: The work history must demonstrate application of professional engineering principles and practices wherein work was supervised by a professional engineer. It is preferable that the academic record reflect completion of 5 of the following 7 areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

3.3.3.2 At least six years of experience in providing electronics engineering services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Specialized engineering experience on NAS systems and equipment is highly desirable. Experience in analyzing and testing electronic system performance, and in producing engineering prototypes, studies, and technical documents is required.

3.3.3.3 Knowledge of professional engineering principles, practices and procedures is required. Specialized knowledge of NAS systems and equipment is required. Knowledge of computer hardware, systems software, and computer systems architecture and integration, with emphasis on hardware, are required.

### 3.3.4 General Engineer.

3.3.4.1 A Bachelor of Science degree in mechanical or civil engineering is required. The degree must be from a school of engineering with at least one curriculum accredited by the Accreditation Board for Engineering and Technology (ABET) as a professional engineering curriculum. A degree in engineering technology or in an appropriate professional field such as physics, chemistry, architecture, computer science, mathematics, hydrology, or geology may be substituted depending on other qualifications, and length and type of specialized experience. Alternate degree guidelines: The work history must demonstrate application of professional engineering principles and practices wherein work was supervised by a professional engineer. It is preferable that the academic record reflect completion of 5 of the following 7 areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

3.3.4.2 At least six years of experience in providing general engineering services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Specialized engineering experience on NAS systems and equipment is highly desirable. Experience in analyzing and testing facility system performance, and in producing engineering prototypes, studies, and technical documents is required.

3.3.4.3 Knowledge of professional engineering principles, practices and procedures is required. Specialized knowledge of requisite NAS systems, software and equipment is required.

### 3.3.5 Meteorologist:

3.3.5.1 A Bachelor of Science degree in Meteorology, Atmospheric Science, or other natural sciences, is required.

3.3.5.2 At least six years experience providing radar meteorological services is required. Specialized experience in Doppler weather radar meteorological applications, in evaluating Doppler weather radar products, and in producing analytic reports is required. Experience in computer systems analysis, design, and programming is required. Specialized engineering experience on NAS systems and equipment is highly desirable.

3.3.5.3 Knowledge of professional meteorological procedures involved with weather radar equipment and systems, performance testing, certification, and validation are required.

### 3.3.6 Computer Scientist.

3.3.6.1 A Bachelor of Science degree in Computer Science is required. The degree must include 30 semester hours in a combination of mathematics, statistics, and computer science. At least 15 of the 30 semester hours must have been in any combination of statistics (not business statistics) and mathematics that included differential and integral calculus.

3.3.6.2 At least six years experience in providing computer science services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Experience in software development and modifications, circuit analysis, and technical writing skills are required. Requisite experience on NAS systems and equipment is highly desirable.

3.3.6.3 Knowledge of systems software, computer systems architecture and integration, software programming, development, review, audit, testing, configuration management, requirements, and changes is required. Highly developed software programming skills in NAS applications software such as 'C', UNIX, Assembly, ADA, and FORTRAN are required. Specialized knowledge of NAS systems and equipment is required.

### 3.3.6 Computer Systems Analyst/Computer Programmer.

3.3.6.1 A Bachelor of Science degree in Computer Science is required. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.6.2 At least four years experience in providing computer programmer/computer systems analyst services is required. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements. Experience in producing and maintaining software and firmware programs and documentation is required. If direct NAS support, requisite experience on NAS systems and equipment is highly desirable.

3.3.6.3 Knowledge of software programming, development, review, audit, testing, configuration management, requirements, and changes is required. Highly developed programming skills using 'C'/'C'++, UNIX, Assembly, ADA, FORTRAN, and other NAS required software is required. For direct NAS support positions, specialized knowledge of NAS systems and equipment is required.

### 3.3.7 Network Administrator.

3.3.7.1 A Bachelor of Science degree in Computer Science is required. The degree must include 30 semester hours in a combination of mathematics, statistics, and computer science. At least 15 of the 30 semester hours must have been in any combination of statistics (not business statistics) and mathematics that included differential and integral calculus. Specialized advanced degrees appropriate to the field of technology covered by this PWS may be substituted for a limited portion of the experience requirements.

3.3.7.2 At least six years of experience in developing, revising, testing, and maintaining hardware, software, and associated documentation applied to Local Area Network (LAN) support is required. Assistance in developing of training materials for network users is required. (Note: May only be assigned to Division Staff, AJW-141)

3.3.7.3 Knowledge of LAN and E-MAIL software programming, development, review, audit, testing, configuration management requirements, and changes is required. Highly developed programming skills using Netware, Zenworks, and other applications software tools are required.

### 3.3.8. Data Base Administrator.

3.3.8.1 A Bachelor of Science degree in Computer Science is required. A degree in another technical discipline may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.8.2 At least five years experience in developing, revising, testing, and applying code to data base applications is required. Assistance in development of training materials and training of data base users may be required. (Note: May only be assigned to Division Staff, AJW-141)

3.3.8.3 Knowledge of software programming, development, review, audit, testing, configuration management, requirements, and changes is required. Highly developed programming skills using Oracle, Solaris Operating System, Power Builder, CCC Harvest, and other software as identified is also required.

### 3.3.9 Computer Support Specialist:

3.3.9.1 A Certificate of Training in a two year Computer Maintenance curriculum from either a community college or Vocational Education School is required. An equivalent Certificate of Training from the Military will be acceptable.

3.3.9.2 At least three years of experience in maintaining hardware and software applications as applied to Local Area Network (LAN) and peripheral equipment support is required. Assistance in development of training materials and training of network users is also required. (Note: May only be assigned to Division Staff, AJW-141)

3.3.9.3 Knowledge of LAN and E-MAIL hardware and software is required. Proficiency in programming skills using Netware, Zenworks, and other LAN applications software tools is required.

### 3.3.10 Engineering Technician/Electronic Technician.

3.3.10.1 An Associate Degree in Electronics Technology or completion of equivalent technical courses in the Military Service or the FAA Academy is required.

3.3.10.2 At least five years experience in an engineering technical support position or electronic systems maintenance support position is required. Engineering technician experience includes working with engineers in prototype design development and testing. Electronic technician experience includes operating, installation, troubleshooting, and repair of electronic systems and equipment. Experience in writing and revising technical documentation for electronic and electro-mechanical systems and equipment is required.

3.3.10.3 Knowledge of maintenance and operation procedures of systems and equipment is required. Knowledge of data processors, software and firmware applications, and computer systems is desirable. Knowledge of NAS related systems and equipment is highly desirable. Tradeoffs between these requirements and other qualifications may be made after evaluation of applicant's qualifications. For direct NAS support positions, specialized knowledge of NAS systems and equipment is required.

### 3.3.11 General Technician.

3.3.11.1 An Associate Degree in mechanical or electrical technology or completion of equivalent technical courses in the Military Service or the FAA Academy is required

3.3.11.2 At least four years experience in performing maintenance and/or installation related activities on electrical and mechanical systems and equipment is required. General technician experience may include operation, installation, troubleshooting, and repair of electrical and mechanical operating systems and equipment. Facility plant or building maintenance experience may be acceptable. Experience in performing installation and maintenance activities from written documentation is required.

3.3.11.3 Knowledge of NAS facilities and related systems and equipment; operational procedures; and technical documentation are highly desirable. For direct NAS support positions, specialized knowledge of NAS systems and equipment is required.

### 3.3.12 Technical Editor/Technical Writer:

3.3.11.1 An Associate Degree in Communications is required. A Bachelor of Arts Degree in Communications or related discipline is desirable.

3.3.12.2 At least three years experience in writing and editing technical documentation is required. Experience in writing and editing technical documentation on NAS equipment is highly desirable.

3.3.12.3 Knowledge of the FAA modification and documentation process and the FAA directive system is required. Working knowledge of NAS systems and equipment is required.

### 3.3.13 Technical Draftsman/Illustrator:

3.3.13.1 A two-year Associate Degree in Technical Design and Drafting is required. A Bachelors of Science Degree in engineering or industrial technology or drafting is desirable.

3.3.13.2 At least three years experience in Computer Aided Design and drafting and manual preparation of engineering drawings and technical illustrations is required.

3.3.13.3 Knowledge of FAA drafting procedures and processes is required. Working knowledge of NAS systems and equipment is highly desirable.

### 3.3.14 EOSH Specialist.

3.3.14.1 A Bachelor Degree with major study in safety, occupational health and/or environmental protection. A degree in another technical discipline which included at least 24 hours of study from among the following disciplines: safety, occupational health, industrial hygiene, occupational medicine, toxicology, public health, mathematics, physics, chemistry, biological sciences, engineering and industrial psychology, may be substituted depending on other qualifications, and length and type of specialized experience.

3.3.14.2 At least five years experience managing safety and occupational health program elements, to include environmental protection, is required. Areas of support include, but are not limited to, the following: (1) Safety & Occupational Health: The elimination or minimization of human injury and property and productivity losses, caused by harmful contact incidents, through the design/implementation/support of effective management policies, programs, or practices. Developing and recommending safety & occupational health policy to management. Applying safety & occupational health laws, regulations, principles, theories, practices, and procedures to advise on or resolve technical matters within the program. Developing safety & occupational health policy, practices, and procedures to eliminate or control potential hazards. Developing or implementing programs to reduce the frequency, severity, and cost of accidents and occupational illnesses. Modifying workplaces, processes, products, or other systems to control or eliminate hazards. Inspecting or surveying workplaces, processes, products, or other systems for compliance with established safety & occupational health policies or standards to identify potential new hazards. (2) Environmental Protection: Advising on, managing, or performing program work relating to environmental protection programs (e.g., programs to protect or improve environmental quality, control pollution, remedy environmental damage, or ensure compliance with environmental laws and regulations). Program administration and oversight, which involves managing, administering, and coordinating programs or projects to achieve and maintain environmental compliance of ongoing operations or remediate past environmental violations or compliance problems. Inspecting or surveying workplaces, processes, products, or other systems for compliance with established environmental protection policies or standards to identify potential new hazards. (3) Training: Training of workers, supervisors, or managers in safety, occupational health, or environmental protection subjects, to include development of such training and training program administration.

3.3.14.3 Substantive knowledge of the principles, standards, and techniques of safety and occupational health program management is required. Specialized knowledge of the principles and methods of administering environmental protection programs and the laws and regulations related to environmental protection activities is required. Knowledge of FAA and AJW-14 organizational training directives, methodology, and processes is required. Effective oral and written communication skills are required, specifically, development of technical/non-technical course material and the class delivery thereof. Ability to use software applications in support of training development/delivery such as Framemaker, Flash, Authorware. Ability to apply advanced concepts of Excel to support training administration.

### 3.3.15 Administrative Analyst, Level 3:

3.3.15.1 An Associate Degree related to the program support provided is required. As an example, an Associate Degree in Computer Science, Engineering Technology or Information Systems Management would be required in providing assistance to quality assurance or configuration management. Training in Word Processing and Spreadsheet Applications is required for all areas of Administrative Analyst support.

3.3.15.2 At least three years experience in respective area of support is required. Typical areas of support include, but are not limited to: NAS Configuration Management; database management; Safety Management System (SMS); quality assurance; or other substantive programs national in scope wherein work is difficult and complex and new methods, approaches, and/or procedures may have to be developed.

3.3.15.3 Knowledge of FAA and AJW-14 administrative policies and procedures and ability to use advanced word-processing and computerized spreadsheet applications, such as are found in MS Office, are required. Substantive knowledge of policies and procedures governing program supported.

### 3.3.15 Administrative Analyst, Level 2:

3.3.15.1 An Associate Degree related to the program support provided is required. As an example, an Associate Degree in Business Administration Management would be required in providing assistance to property. Training in Word Processing and Spreadsheet Applications is required for all areas of Administrative Analyst support.

3.3.15.2 At least two years experience in respective area of support is required. Typical areas of support include, but are not limited to: telecommunications; physical space; property; purchasing through contract, or other programs wherein work is difficult, non-routine in nature, but well-precedented.

3.3.15.3 Knowledge of FAA and AJW-14 administrative policies and procedures and ability to use advanced word-processing and computerized spreadsheet applications, such as are found in MS Office, are required. Working knowledge of policies and procedures governing program supported is required.

### 3.3.15 Administrative Analyst, Level 1:

3.3.15.1 Completion of one or two years of college courses in the specific area of work is desirable. As an example, courses in business administration would be required in providing assistance to receiving and shipping. Training in Word Processing and Spreadsheet Applications is required for all areas of Administrative Analyst support.

3.3.15.2 At least one year experience in respective area of support is required. Typical areas of support include, but are not limited to: shipping, receiving, or other programs wherein day-to-day work is recurring and routine in nature and work procedures are well-established.

3.3.15.3 Knowledge of FAA and AJW-14 administrative policies and procedures and ability to use advanced word-processing and computerized spreadsheet applications, such as are found in MS Office, are required. Working knowledge of policies and procedures governing program supported is required.

### 3.3.16 Word Processor Specialist:

3.3.16.1 An Associate Degree in Secretarial Sciences or Communications is desirable. Course completion in Microsoft Word or related word processing is required.

3.3.16.2 Two years experience in applying word processing software functions to prepare complex and detailed technical documents is required. Documents include tables, graphs, charts, and multiple columns. Word processing experience on NAS documentation is desirable.

3.3.16.3 Knowledge of word processing software applications and office practices needed to prepare complex technical documents from draft copy is required. Knowledge of NAS related Orders, Directives and administrative procedures are required.

### 3.3.17 Secretary 3:

3.3.17.1 An Associate Degree in Secretarial Sciences is required. Training in secretarial sciences, office administration, or related specialized training is required. An Associate degree in a related discipline may be substituted depending on other qualifications; length and type of specialized experience, and documented training in secretarial sciences, office administration, or related specialized training.

3.3.17.2 At least four years experience in providing secretarial services in an office environment at the second-level of management (Division equivalent) is required. Skills should include maintenance of administrative and technical files, word processing, compose correspondence, prepare reports, maintain T&A records, schedule meetings, etc. Additionally, instructs and assists secretaries within the branches on procedural matters such as the correct procedures to follow in preparing correspondence, securing FAA ID badge, maintaining official records, scheduling conferences, etc.

3.3.17.3 Knowledge of FAA administrative policies and procedures and ability to use advanced word-processing and computerized spreadsheet applications are required. Additionally, knowledge of FAA organizational structure and functions and ability to communicate effectively orally and in writing is required.

3.3.17 Secretary 2:

3.3.17.1 An Associate Degree in Secretarial Sciences is desirable. Training in secretarial sciences, office administration, or related specialized training is required.

3.3.17.2 At least three years experience in providing secretarial services in an office environment at the first-level of management (Branch equivalent) is required. Skills should include maintenance of administrative and technical files, word processing, compose correspondence, prepare reports, maintain T&A records, schedule meetings, etc.

3.3.17.4 Knowledge of FAA administrative policies and procedures and ability to use advanced word-processing and computerized spreadsheet applications are required. Additionally, knowledge of FAA organizational structure and functions and ability to communicate effectively orally and in writing is required.

3.3.17 Secretary 1:

3.3.17.1 An Associate Degree in Secretarial Sciences is desirable. Training in secretarial sciences, office administration, or related specialized training is required.

3.3.17.2 At least two years experience in providing secretarial services in an office environment at the first-level of contract management is required. Skills should include maintenance of administrative and technical files, word processing, compose correspondence, prepare reports, maintain T&A records on a back-up basis, schedule meetings, etc.

3.3.17.5 Knowledge of FAA administrative policies and procedures and ability to use advanced word-processing and computerized spreadsheet applications are required. Additionally, knowledge of FAA organizational structure and functions and ability to communicate effectively orally and in writing is required.

3.3.18 Program Analyst:

3.3.18.1 A Bachelors Degree with a major in accounting or another four-year degree wherein at least 18 semester hours in accounting were completed is required.

3.3.18.2 At least four years of experience in accomplishing budget related activities and providing support to an organizational entity with a budget in excess of one million dollars is required. Typical fiscal duties at the Division level include, but are not limited to, support to the purchase card program; organization-wide reconciliation; supply/logistics program; and contract vouchering process. Typical fiscal duties at the Branch level include, but are not limited to, support to the OPS budget execution process; support to the travel program to include voucher review; financial planning for F&E and/or reimbursable funds; review and processing of purchase requests; and providing fiscal guidance and assistance to Branch personnel as required. Additionally, ensures that the Data Management System (DMS) accurately reflects commitments and obligations through timely and accurate update thereof.

3.3.18.3 Knowledge of FAA and AJW-14 fiscal (acquisition and budget) policies and procedures is required. Ability to use advanced word-processing and computerized spreadsheet applications is required. Ability to communicate effectively orally and in writing is required.

3.3.19 Librarian:

3.3.19.1 A Bachelors Degree with a major in library science is required A degree in a related discipline may be substituted depending on other qualifications, and length and type of specialized experience. To qualify on this basis, the record must establish conclusively that the education, training, and experience provided a knowledge and understanding of the theories, principles, and techniques of professional librarianship; a knowledge of literature resources; and the knowledge and abilities essential for providing effective library and information services.

3.3.19.2 At least three years experience in providing librarian services is required. Specialized advanced degree appropriate to the field of library science may be substituted for a limited portion of the experience requirements. Specialized experience in providing library services to an engineering or physical sciences function is highly desirable. Experience providing comprehensive reference, research, advisory, evaluative, and instructional services is required.

3.3.19.3 Knowledge of the theories, principles and techniques of professional librarianship is required. Additionally, working knowledge of NAS systems and equipment is required.

#### 3.3.18 Developmental Positions:

There may be cases where the Contractor finds it necessary to employ individuals that do not meet the full education and experience requirements. In those cases the Contractor may submit for FAA consideration a resume with justification and target position in advance of commitment. If approved, the incumbent to the target position shall be assigned to perform contract work under the appropriate developmental title. Upon meeting the required education and experience requirements, the incumbent will be considered for appropriate grade level increases beyond the developmental level. AJW-14 reserves the right to review the qualifications of the developmental incumbent before grade level increase is effected.

#### 3.3.19 Waiver of requirements:

Some applicants may not meet the formal education requirements, but have demonstrated the ability to perform some or all of the work elements described in SECTION 2 - AREAS OF EFFORT in this PWS. These individuals have gained qualifying experience through previous work in the FAA Academy, field maintenance activities, and FAA engineering organizations. AJW-14 reserves the right to waive the formal education requirements for these individuals with qualifying experience; EXCEPT, formal education requirements shall not be waived for engineers, meteorologists, and/or computer scientist.

### 3.4 CONTRACTOR STAFFING REQUIREMENTS:

#### 3.4.1 General Information:

3.4.1.1 The staffing levels are incorporated into the contract primarily for proposal purposes. The staffing levels presented are best estimates for budgeting and workload projections. The contractor will be notified in writing of the authorized staffing level. Once notified of the staffing level, the contractor shall not unilaterally staff to a level maximum. The requiring organization will determine the number and type of position vacancies to be filled.

3.4.1.2 Contract funding and project initiation will not always begin and end on the requiring organizations budget year (FY), or the contract anniversary date. AJW-14 anticipates being either understaffed or over staffed on a particular position for periods of time without exceeding the total number of employees for the authorized staffing level in effect. For example staffing "Level B" may be authorized, but project requirements may dictate we have more engineering technicians than shown but less engineers and still remain within the "Level B" limit of 375 positions.



### 3.4.2 Staffing Levels:

The established position title and the estimated number for each position for all three levels of contract staffing are as shown:

	PROPOSED LEVEL	PROPOSED LEVEL	PROPOSED LEVEL	PROPOSED LEVEL
POSITION TITLE	A	B	C	D
Contract Manager	1	1	1	1
Technical Manager	7	7	9	10
Elect/Electronic Engineer	85	121	147	172
Software Engineer	39	45	60	75
General Engineer	2	2	2	2
Meteorologist	3	5	5	6
Computer Scientist	22	25	25	25
Network Administrator	1	1	1	1
Data Base Administrator	2	2	2	2
Computer Systems Analyst	5	5	5	5
Computer Programmer	12	14	14	14
Computer Support Specialist	4	5	6	7
Librarian	1	1	1	1
Engineering Technician	20	20	20	20
Electronics Technician	15	15	15	15
General Technician	5	5	5	5
Draftsman	3	3	4	5
Technical Editor	8	8	9	10
Technical Writer	4	4	6	8
Program Analyst	8	8	9	10
Administrative Analyst 1, 2, 3	15	15	15	15
EOSH Specialist	1	1	1	2
Word Processor Specialist	2	2	2	2
Secretary 1, 2, 3	10	10	11	12
	<b>275</b>	<b>325</b>	<b>375</b>	<b>425</b>

Note: staffing chart is an excel document

## SECTION 4 - FACILITIES, SUPPLIES AND EQUIPMENT

### 4.1 FACILITIES:

#### 4.1.1 Contractor Furnished Facilities:

The Contractor may be required to establish an Oklahoma City office to accomplish some of the requirements of this PWS. If established this office shall be conveniently located near the Mike Monroney Aeronautical Center. The facilities shall be consistent with the quality of office space normally utilized by Government agencies.

Additionally the Contractor may be required to obtain, manage and operate storage and production workspace which shall be conveniently located near the Mike Monroney Aeronautical Center. The uses of any such facilities may include, but are not limited to, the temporary storage of in-process parts and materials and production workspace areas. Any such facilities shall be compatible with their intended uses.

#### 4.1.2 Government Furnished Facilities:

To the extent space is available, Contract personnel will be located at the Mike Monroney Aeronautical Center. The following services will be provided when the Contractor is located at MMAC.

- a. Facilities. The Government shall provide working space and furnishings for contract personnel consistent with facilities provided to government employees in that work area. The Contractor shall share responsibility for physical security and safety, along with government personnel.
- b. Utilities. Contract employees will be provided the same utilities as those provided FAA employees while located at the MMAC. The Contractor shall use Government furnished utilities in a prudent manner.
- c. Telecommunications. The Government shall furnish telecommunication service to the work area for official use only.
- d. Janitorial Services. The Government shall provide the same janitorial service to the Contractor as provided for MMAC.

### 4.2 GENERAL SUPPLIES AND EQUIPMENT:

#### 4.2.1 Contractor Provided Supplies and Equipment:

4.2.1.1. In the case of a Contractor Office not located at MMAC, the Contractor shall provide office supplies and materials required in an engineering design office. Items such as paper tape, printer paper, magnetic tape and diskettes, and related materials associated with deliverable software shall be furnished by the Contractor.

#### 4.2.2 Government Provided Supplies and Equipment:

4.2.2.1. For contract personnel located at the Mike Monroney Aeronautical Center, the Government shall provide basic supplies and materials normally available to Government employees. Some supplies and materials may be purchased by the Contractor. The cost of these supplies and materials shall be reimbursed to the Contractor as a direct cost.

4.2.2.2 Certain assigned projects may require special supplies, tools, or equipment. The Government may choose to provide these items or authorize the Contractor to buy them.

4.2.2.3 Request by the Contractor for reimbursement of supplies and equipment, utilized in performance of this PWS, will be submitted through the standard voucher method.

4.2.2.4 The Contractor will be granted use of the AJW-14 Test Equipment Lab, Computer Room, and requisite Program Support Facilities to perform the technical support required under this PWS. Use of the AJW-14 support facilities and equipment must be coordinated with the requiring organization.

4.2.2.5 Contract personnel may utilize the AJW-14 Technical Documentation Center for access to technical reference materials.

#### 4.3 GOVERNMENT FURNISHED EQUIPMENT (GFE):

It is the intent of AJW-14 to place all contract employees on site at MMAC, and no GFE will be required. In the event adequate on-site space is not available, some GFE may need to be provided to the contractor. The type and amount will be determined at that time. GFE property transactions between the contractor and the FAA will be recorded on FAA Form(s) 4650-12. The FAA will provide required forms. The contractor shall follow the procedures as provided by the FAA for tracking of GFE and Accountable Property records and reporting.

## SECTION 5 - REPORTING

### 5.1 ENGINEERING PROJECT LIST:

The Contractor shall establish and maintain a list of project assignments. Typically the list will include the project number, project title, project status, employee name, and project completion date for all projects assigned. This schedule shall be kept current. A hard copy or electronic copy will be made available to the CO/COTR upon request.

### 5.2. COST SUMMARY:

The Contractor shall provide a cost summary of expenditures on each contract employee per voucher period. Cost summary to include cost to date (labor cost, materials costs, and travel cost), and estimated cost to complete (labor, material, and travel) the contract year or AJW-14 budget year on a per employee basis. Cost summary to be provided in Microsoft Excel, or whatever spreadsheet software is in use by AJW-14 at the current reporting time. This report will be kept current and provided to AJW-14- Fiscal Business Manager.

### 5.3 TIME UTILIZATION REPORT (TUR):

AJW-14 government employees account for their labor hours expended for each assigned work project and leave hours when they complete their Time and Attendance entries at bi-weekly intervals. In order for AJW-14 to capture contractor employee hours expended on assigned projects, all contract employees are required to complete a Time Utilization Report on a bi-weekly basis.

### 5.4 ADHOC REPORTS:

Status reports are an integral function of the work effort outlined in the PWS. The contractor will be required to prepare and/or assist in the preparation of reports on an as needed basis. Typically the types of reports will include but not be limited to: trip reports, budget and acquisition, training, requests for assistance (ROA), staffing, configuration management, project status reports, white papers, fiscal property, documentation, briefing papers, etc.

### 5.5 PROGRESS REVIEW:

On an as required basis, contract employees and management may be called on to provide progress reviews on project activities. Typical progress reviews will be an oral presentation to the branch manager or team lead. Contract management and employees may be asked to participate in more formal program reviews conducted by the division manager.

## SECTION 6 - QUALITY

### 6.1 QUALITY CONTROL:

The Contractor is solely responsible for the quality products and services provided. The Contractor shall establish and maintain a quality control program for the furnishing of supplies and services. This program shall include a controlled plan of events integrating all necessary procedures, controls, inspections, and tests required to substantiate quality of service and product as stated in FAA-STD-013d, Quality Control Program Requirements. Any additional quality control processes or procedures if required will be identified in requisite task, sub-task, or engineering project requirements.